



Complete Inorganic Chemistry  
ANALYSIS REPORT

Date Collected: 03/23/26	System Group Type: A B Other: P
Water System ID Number: 50864	System Name: Langston
Lab Number/Sample Number: 0660-A26C0560-01	County: Snohomish
Sample Location: 14425 235th SE Yard Hydrant at Well	Source Number (s):
Sample Purpose: (Check Appropriate Box) RC - Routine Compliance (Satisfies monitoring requirements) C - Confirmation (Confirmation of chemical result) <input checked="" type="checkbox"/> I - Investigative (Does not satisfy monitoring requirements) O - Other (Specify- does not satisfy monitoring requirements)	Date Received: 03/24/26 Date Reported: 04/01/26 Comments:
Sample Composition: (Check Appropriate Box) <input checked="" type="checkbox"/> S - Single Source B - Blended (List source numbers in "Source Numbers" field) C - Composite (List source numbers in "Source Numbers" field) D - Distribution Sample	Sample Type: (Check One) <input checked="" type="checkbox"/> Pre-treatment/Untreated (Raw) Post-treatment (Finished) Unknown or Other Sample Collected by: Kevin White Phone Number: 360-794-7300
Send Report To: JKA Enterprises 21703 195th Ave SE PO Box 310, Monroe, WA 98272	Bill To: Beverly Kiltoff

ANALYTICAL RESULTS

DOH#	CONTAMINANT	DATA QUALIFIER	RESULT	SDRL	TRIGGER	MCL	UNITS	EXCEEDS MCL (X if Yes)	DATE ANALYZED	METHOD/ INITIALS
0004	Total Arsenic		ND	0.001	0.01	0.01	mg/L		04/01/26	EPA 200.8_5.4_1994/ LF
0161	Total Nitrate + Nitrite		1.33	0.5	5	10	mg/L		03/25/26	EPA 300.0_2.1_1993/ AL
0020	Nitrate Nitrogen		1.33	0.5	5	10	mg/L		03/25/26	EPA 300.0_2.1_1993/ AL
0114	Nitrite Nitrogen		ND	0.1	0.5	1	mg/L		03/25/26	EPA 300.0_2.1_1993/ AL

**NOTES**

**\*Confirmation:** Include the original lab number, sample number, and collection date of original sample in either comment section.

**ND:** Analyte not detected at or above the SDRL.

NA -No trigger value for combined nitrate plus nitrite.

1 Secondary MCL (Established for aesthetic purposes, not health based)

2 TDS is required to be run if conductivity exceeds the MCL.

**DATA QUALIFIER** A symbol or letter to denote additional information about the result.

**DOH#:** Department assigned analyte number.

**EXCEEDS MCL (Maximum Contaminant Level):** Marked if the contaminant amount exceeds the MCL under chapters 246-290 and 246-291 WAC.

Please contact the department's drinking water regional office in your area to determine follow-up actions.

**mg/L:** milligrams per liter or parts per million.

**NTU:** Nephelometric turbidity units.

**RESULT:** The laboratory reported result.

**SDRL (State Detection Reporting Level):** The minimum reportable detection of an analyte as established by the department.

**TRIGGER:** The department's drinking water response level. Systems with contaminations detected at concentrations in excess of this level may be required to take additional samples or monitor more frequently.

**Sample ID:** A26C0560-01

**Sample Name:** 14425 235th SE Yard Hydrant at Well



**ElementStationManager For Seth Farb**

Vice President

Report To:	Bill To: <i>JFA</i>
Address:	Address:
City: State: Zip:	City: State: Zip:
Phone:	SEND REPORT BY: <input type="checkbox"/> MAIL <input type="checkbox"/> WEB <input checked="" type="checkbox"/> EMAIL
Email:	

**Sampling Information REQUIRED**

1.  **Investigative**     **Compliance** - for State regulations for Public Water Systems. (Results will be sent to you and the State.)

2. Date Collected: *3/23/26*    Time Collected: *10:30*    AM  PM

3. Collected By: *Kevin White*    Telephone: *360-794-7900*

4. Specific Location where sample was taken: *14425 235<sup>th</sup> SE  
 Yard HYDRO AT Well*

**Water System Information REQUIRED**

5. System Name: *Langston*    System ID #: *50864*

6. DOH Source #:     Check here if this is a New Source  
 (Without a source number DOH will not accept samples. If sample is blended from more than one source, list all)

7. Group:  A     B    8. County: *Snohomish*

9. Source Type:  Surface     Well/Ground Water     Well Field     Spring     Purchased

10. Sample Taken:  Before Treatment     After Treatment     No Treatment     In Distribution

11. Treatment Type:  None     Aeration     Filtration     Chlorination     Softener     Other:

**Analysis to Perform (FREQUENTLY REQUESTED TESTS). FOR OTHERS, PLEASE LIST UNDER OTHER ANALYSIS**

<b>Organic Compounds</b> <input type="checkbox"/> 524.2 - VOC <input type="checkbox"/> 552.2 - Haloacetic Acids (HAA) <input type="checkbox"/> 524.2 - Trihalomethanes (THM)	<b>Inorganic Compounds</b> <input type="checkbox"/> Complete Inorganics (IOC) <input type="checkbox"/> Plumbing <input checked="" type="checkbox"/> Arsenic <input checked="" type="checkbox"/> Nitrates in Drinking Water <input type="checkbox"/> Snohomish County List <input type="checkbox"/> 531 - Carbamates	<b>OTHER ANALYSIS, Please List:</b>  
<b>Synthetic Organic Compounds (SOC)</b> <input type="checkbox"/> 515 - Herbicides <input type="checkbox"/> 525 - Insecticides/Pesticides		

Relinquished By	Date	Time	Received By	Date	Time
			<i>[Signature]</i>	<i>3/24/26</i>	<i>3:13</i>

**\*\*\*FOR LABORATORY USE ONLY\*\*\***

	YES	NO	N/A
SAMPLE TEMP. <i>14.7 °C SATISFACTORY</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CHAIN OF CUSTODY & LABELS AGREE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
LABORATORY ID# <i>A26C0560 - 01</i>	REQUESTED TAT: <input type="checkbox"/> NORM <input type="checkbox"/> 2-DAY <input type="checkbox"/> 5-DAY <input type="checkbox"/> 24-HOURS	PAYMENT:	

**\*\*\*Helpful Hints to fill out form on reverse\*\*\***



JKA Well Drilling & Pumps  
 PO BOX 310  
 Monroe, WA 98272  
 (360) 794-7300

**BILL TO**

Pennie Langston  
 14425 235th Street Southeast  
 Snohomish, WA 98296 USA

**INVOICE**  
 50864

**INVOICE DATE**  
 3/23/2026

**JOB ADDRESS**

Pennie Langston  
 14425 235th Street Southeast  
 Snohomish, WA 98296 USA

**Completed Date** 3/23/2026  
**Technicians** Kevin White  
 Tyler Davis  
**Customer PO #**  
**Payment Term** Due Upon Receipt  
**Due Date** 3/23/2026

**DESCRIPTION OF WORK**

Site visit to inspect well system for real estate transaction. Well pump and motor measure within electrical specification. The control box has leaking start capacitors and is close to 20 years old. JKA recommends replacement. The pressure tank is past its expected service life. JKA recommends replacing it soon. Water samples were collected for laboratory testing which includes arsenic, nitrates, and bacteria. Laboratory test results typically take 2 weeks to get back. The inspection results will be provided upon remittance of payments.

DESCRIPTION	QTY	PRICE	TOTAL
*Well Inspection, Real Estate Transaction, Complete: Arsenic, nitrates, and bacteriological testing by third party Washington State certified laboratory. Bacteriological testing will take 4-6 business days for laboratory processing. Nitrates/arsenic will take 8-11 business days for laboratory processing. Visual inspection of plumbing/electrical components on site. A written report showing current system, equipment, setbacks, and any recommendations will be provided. Up to 1-1/2 HOURS of flow testing using owners power supply to run pump. Additional time will be billed at \$195 per hour. If power is unavailable at time of service, with prior notice, Company can provide a generator for an additional \$200, plus \$45 per operating hour.	1.00	\$950.00	\$950.00

**PAYMENT**

Paid On	Type	Memo	Amount
2/24/2026	Visa		\$300.00
3/23/2026	Online Payments		\$725.05
		<b>SUB-TOTAL</b>	\$950.00
		<b>TAX</b>	\$75.05
		<b>TOTAL DUE</b>	\$1,025.05
		<b>PAYMENT</b>	\$1,025.05


Thank you for your business!

**BALANCE DUE**

**\$0.00**

Job #50864

## Inspection - Flow Testing

Location & Inspector	
<b>Customer Name</b> Pennie Langston	<b>Location Name</b> Pennie Langston
<b>Location Address</b> 14425 235th Street Southeast, Snohomish, WA 98296 USA	<b>Inspector</b> Tyler Davis
<b>Technician/Inspector Signature</b> 	
<b>Date</b> 2026-03-23	

### Well Flow Testing

Flow testing is completed to determine if the well can deliver adequate amounts of water over a short period of time. Flow testing does NOT include measurements from the surface to water level while the pump is operating. However, a measurement of water pumping rates against time, and careful measurements of pump performance, can often yield results that are adequate for most purposes.

Flow testing should be conducted in a manner that yields at least 1.5 times the volume of the well in pumped water.

Washington State requires 400 gallons per day (GPD) of well production to adequately supply a single home. For group water systems (Group A > 14 connections, Group B 2-13 connections), the Washington State Department of Health requires 800 GPD per connection.

As a rule of thumb, wells should ideally produce 5-10 GPM or more, which is greater than 7000-14000 gallons per day. At lower rates than this, above ground storage tanks are required to meet the peak demands.

<b>Observed Pumping Rate</b> Reported in GPM, unless otherwise noted 10.25	<b>Elapsed Time</b> Elapsed time since start of test 40 minutes
<b>Observed Pumping Rate</b> Reported in GPM, unless otherwise noted 10.25	<b>Elapsed Time</b> Elapsed time since start of test 40 minutes
<b>Observed Pumping Rate</b> Reported in GPM, unless otherwise noted -	<b>Elapsed Time</b> Elapsed time since start of test -

<p><b>Observed Pumping Rate</b> Reported in GPM, unless otherwise noted -</p>	<p><b>Elapsed Time</b> Elapsed time since start of test -</p>
<p><b>Observed Pumping Rate</b> Reported in GPM, unless otherwise noted -</p>	<p><b>Elapsed Time</b> Elapsed time since start of test -</p>
<p><b>Estimated Total Volume Pumped</b> An estimate of total volume of water pumped during the test. 400 gallons</p>	
<p><b>Technician Comments &amp; Follow Up</b></p>	
<p><b>Technician Comments</b> -</p>	<p><b>Estimates and/or Recommendations</b> <input checked="" type="checkbox"/> No repairs/estimates required at this time.</p>

Job #50864

## Inspection - Motor Controller/Protection/VFD

### Location & Inspector

**Customer Name**

Pennie Langston

**Location Name**

Pennie Langston

**Location Address**

14425 235th Street Southeast, Snohomish, WA 98296 USA

**Inspector**

Tyler Davis

**Technician/Inspector****Signature****Date**

2026-03-23

### Motor Controls

**Controller Condition**

Controller condition is indicated below - red means unit has failed inspection, yellow is fair condition, and green is good condition.



"Leaking capacitor "

**From Seller:**  
Well Solenoids both replaced in controller as recommended by well inspection

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**Controller**

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"5 amps on start winding, 2 amps on run winding"

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**Model**

Franklin electric delux

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**HP Rating**

3

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**Voltage**

230

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**Phase**

1

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**Equipment Installation Date**

Estimated Installation Date

2005

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**Comment**

-

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**Picture of Control(s)**

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**Technician Comments & Follow Up**

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**Technician Comments**

-

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**Estimates and/or Recommendations**

Job #50864

## Inspection - Pressure Tank

### Location & Inspector

#### Customer Name

Pennie Langston

#### Location Name

Pennie Langston

#### Location Address

14425 235th Street Southeast, Snohomish, WA 98296 USA

#### Inspector

Tyler Davis

#### Technician/Inspectors

#### Signature



#### Date

2026-03-23

Pressure tanks typically have a life span of 12-16 years, sometimes longer if conditions are good. Preventative maintenance and replacement prior to failure is a good idea, as tank failure can cause catastrophic water system failure if left unrepaired. Maintenance includes annually shutting the water system down, draining the water out of the tank, and setting the diaphragm pressure to 2 PSI below the cut-in point on the pressure switch, or at 70% of the pressure setting on a constant pressure system.

The pre-charge air is separated in the tank by a diaphragm or bladder. These materials can develop leaks, resulting in moisture or water in the air portion of the tank - this indicates a tank replacement is required ASAP. Compressed air is required in a pressure tank so that the water can remain pressurized when the pump is not running. Older pressure systems used Captive Air tanks which didn't have a separation barrier built-in, but required periodic airing up or the use of special valves to suck air into the tank during pump cycles - this technology has been phased out over the last 40 years or so and is considered antiquated except in very large water systems. Pressure tanks are sized by total volume, typically between 5 and 80 gallons, though most of the volume is pre-charged air. Typically, only 25% of this volume is used for water. Pressure tanks in traditional systems should be sized to allow the well pump to run for a minimum of 1-2 minutes when it starts - this means a 10 GPM pump needs a minimum of 10-20 gallons of water in the tank, meaning a 40 to 80-gallon tank in total volume. Tanks are typically installed above ground and must be kept frost-free.

#### Pressure Tank Condition

Pressure Tank condition is indicated below - red means the tank has failed inspection, yellow is fair condition, and green is good condition.



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**Diaphragm pressure setting**

Record actual setting / recommended setting, in PSI

Unable to connect hose the the boiler drain on tank tee.

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**Installed On Date**

2008

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**Manufacturer**

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**Model**

Proflo PF-119 80 gallon

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**Picture of Tank**

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**Technician Comments & Follow Up****Technician Comments**

Pressure tank is past its expected service life of 15 years


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**Estimates and/or Recommendations**

- Inspection will be followed with estimates

Job #50864

## Inspection - Pump and/or Motor

Location & Inspector	
<b>Customer Name</b> Pennie Langston	<b>Location Name</b> Pennie Langston
<b>Location Address</b> 14425 235th Street Southeast, Snohomish, WA 98296 USA	<b>Inspector</b> Tyler Davis
<b>Technician/Inspector Signature</b> 	
<b>Date</b> 2026-03-23	
Pump	
<b>Model, nominal flow rate, etc</b> Wet End/Pump End Model, nominal size, or any identifying information. Ranger 3hp flow rate unknown	<b>Pump Condition</b> poor = red, fair = yellow, good = green 
Motor	
Reference <a href="#">Franklin Applications &amp; Installation Manual</a> for testing procedures to verify motor size using above ground tools. See <a href="#">Single Phase Motor Specifications</a> or <a href="#">Three Phase Motor Specifications</a> specifically.	
<b>Motor Type Found</b> Single Phase, 230V, Three Wire	<b>Motor Condition</b> poor = red, fair = yellow, good = green 
<b>Windings</b> poor = red, fair = yellow, good = green 	<b>Insulation resistance</b> poor = red, fair = yellow, good = green  "5 amps on the start winding, 2 amps on run winding"
Technician Comments & Follow Up	

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**Technician Comments**

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**Estimates and/or Recommendations**

Job #50864

## Inspection - Valves, switches, and/or gauges


Location & Inspector	
<b>Customer Name</b> Pennie Langston	<b>Location Name</b> Pennie Langston
<b>Location Address</b> 14425 235th Street Southeast, Snohomish, WA 98296 USA	<b>Inspector</b> Tyler Davis
<b>Technician/Inspector Signature</b> 	
<b>Date</b> 2026-03-23	

### Switches, Gauges, Valves, Etc.

Pressure switches use springs & diaphragms to measure water system pressure. The spring will cause the switch to close when the pressure reaches a low point, and then open when the pressure reaches a high point. Typically switch settings are 40/60 ON/OFF. Some switches come with additional features, such as a low pressure cut out - this will cause the pump to not turn on if the pressure goes below 20 PSI, preventing the pump from running if the well were dry.

Float switches come in two varieties - Pump Up and Pump Down. The movement of the switch from horizontal to vertical will cause the switch to close - a Pump Down switch will close when the switch points up, causing the pump to turn on and pump the tank down. A Pump Up switch will close when the switch points down, causing the pump to turn on and pump water into the tank.

Variable speed pump systems typically come with a transducer or sensor that either delivers a variable amperage or voltage to the motor controller, or a single on/off point, allowing the pump controller to monitor pressure more discreetly.

Device	Condition of Device(s)
<ul style="list-style-type: none"><li><input checked="" type="checkbox"/> Relief Valve</li><li><input checked="" type="checkbox"/> Pressure Switch</li><li><input checked="" type="checkbox"/> Pressure Gauge</li></ul>	Condition is indicated below - red means the device has failed inspection, yellow is fair condition, and green is good condition. 

### Technician Comments & Follow Up

Technician Comments	Estimates and/or Recommendations
-	<input checked="" type="checkbox"/> No repairs/estimates required at this time.

Job #50864

## Inspection - Water Quality

### Location & Inspector

#### Customer Name

Pennie Langston

#### Location Name

Pennie Langston

#### Location Address


14425 235th Street Southeast, Snohomish, WA 98296 USA

#### Inspector

Tyler Davis

#### Technician/Inspector

#### Signature



#### Date

2026-03-23

### On Site Water Quality Checks

#### Ferric Iron / Ferrous Iron Test Results

The EPA recommends under 0.3 ppm, over 0.3 ppm may cause red staining in plumbing fixtures and laundry.

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#### Hardness

Hardness can interfere with soap and causes scale, clogging water heaters & pipes. 1 gpg = 17.1 ppm.

0-3 gpg = soft water, 3-6 gpg = moderately hard water, 6-9 gpg = hard water, 9+ gpg = extremely hard water.

2

#### pH

Under 7.0 = acidic (6.8 or under is corrosive to fixtures and piping when combined with low TDS), 7.0 - 7.25 is neutral, over 7.25 is alkaline (alkaline water increases deposits of calcium/iron scale).

7

#### TDS

Total Dissolved Solids (TDS) is a measure of dissolved material in the water, 80-150 ppm is typical, lower can cause corrosion when combined with low pH, and higher can cause erosion issues.

47

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**Smell**

Observed smell/odor in water

"No odor"

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**Water Clarity**

Observed water clarity

"Water is clear"

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**Particulate**

Particulate material observed

"No sediment"

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**Technician Comments & Follow Up****Technician Comments**

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**Estimates and/or Recommendations**

- No repairs/estimates required at this time.

Job #50864

## Inspection - Wellhead & Well Location

### Location & Inspector

#### Customer Name

Pennie Langston

#### Location Name

Pennie Langston

#### Location Address

14425 235th Street Southeast, Snohomish, WA 98296 USA

#### Inspector

Tyler Davis

#### Technician/Inspectors

#### Signature



#### Date

2026-03-23

## Wellhead & Well Location Inspection

Water well construction is regulated by the Washington State Department of Ecology under WAC 173-160. In most cases, a licensed water well driller is required for the installation, alteration, and/or decommissioning of a water well in Washington. The well pump is not considered part of the well construction from the perspective of water well regulations. A properly constructed well that meets all current codes should be free of contamination from the surface and prevent intermingling waters (mixing between two aquifers, or surface water to groundwater).

#### Picture of Wellhead



## Type of Well/Water Source

Dug wells and spring sources used to be much more common but were replaced with drilled wells as the technology became available. Drilled wells are more likely to provide trouble free water sources with less chance for contamination. Lakes, rivers, and ponds are often used in lieu of any other source in rural cabins but are not sanitary and are subject to Surface Water Right laws.

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### Type of Well/Water Source

Drilled Well

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### Water Source Used For

Domestic

## Well Tagging

Well tagging is required by the Washington State Department of Ecology and helps identify individual wells in the field and in records. If not present, a tag should be added to the well. Properly tagging wells requires filing of a form with Department of Ecology.

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### Well Tag ID

AKR 333

## Dimensions

Dug wells are typically 36-IN in diameter and 5-20 feet deep, often with concrete or brick casings. Drilled wells are typically 6-IN in diameter with steel or PVC well casings. It is not always possible to measure the well depth - obstructions in the well may prevent measurement from the surface.

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### Diameter, Inches

6

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### Depth, Feet

280

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### Type of Well Casing

PVC or Plastic Well Casing

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### Casing Details/Notes

Well log is attached

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### Condition of Well Casing

The well casing should be free of perforations, holes, or damage, should be watertight and sealed in such a way that vermin cannot enter the well.

**Red means there is a failure or there is a violation of code, yellow means caution or there will be a future issue, and green indicates a satisfactory condition.**



## Well Location & Setbacks

Different jurisdictions have different policies about well construction locations, and those policies have evolved over time. It's important that current and future development of a property allow for continued access to the well for maintenance and repair of the well and pump components, and for future decommissioning of the well when it is no longer required. Setbacks are designed to keep the well free of pollution and the groundwater safe for consumption. Washington Administrative Code details the well location setbacks in [WAC 173-160-171](#).

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## Well Location

Wells should be accessible for future work, such as when pumps need to be replaced.

**Red means there is a failure or there is a violation of code, yellow means caution or there will be a future issue, and green indicates a satisfactory condition.**



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## Setbacks

Washington Administrative Code (WAC) sets the standard for setbacks from pollution sources for groundwater wells.

Local jurisdictions may have additional setback requirements - King Co, for example, requires 100-FT radius covenants to be filed on all wells during the home construction process. Typically this only applies for homes constructed after 1992.

**Red means there is a failure or there is a violation of code, yellow means caution or there will be a future issue, and green indicates a satisfactory condition.**

- 100-FT from Septic Tank, Public Sewer, and/or Septic Tight Lines
- 100-FT from Septic Drain Field and Reserve Drain Field
- 5-FT from Property Lines
- 5-FT from Buildings (from roof edge)
- 1000-FT from Landfills/solid waste facilities
- 100-FT from other potential point source pollution sources (manure lagoons, etc)



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## Wellhead Elevation

Well casing should be 6-IN above grade and located in an area not subject to ponding and/or flooding. The purpose is to avoid surface water intrusion into the well.

Wells located in flood plains must stick up 2-FT higher than the 100-year flood plain level.



## Wellhead & Cap

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## Type of Well Cap/Seal

Well caps are typically cast iron, aluminum, or high impact ABS plastic, and are designed and manufactured specifically for the purpose. Well seals are often steel or ABS plates with rubber seals sandwiched between the plates. Some higher flow artesian wells have blind flanges and specially fabricated lids to keep artesian pressure sealed in the well.

- Steel, aluminum, cast iron, or ABS plastic well cap

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## Well cap/seal condition

Well caps/seals should be approved for the application, should be vented to allow atmospheric pressure and drawdown level changes to take air in/out of the well, and should be screened to prevent vermin from entering the well. The well cap/seal should prevent rainwater and surface water from entering the well. The well cap/seal should prevent unauthorized people from entering/accessing the well.

**Red means there is a failure or there is a violation of code, yellow means caution or there will be a future issue, and green indicates a satisfactory condition.**



## Unused/Abandoned Wells

Unused or non complying wells that are not filled and sealed with approved materials are serious violations because they are a pathway for contaminants to enter the ground and ruin your drinking water well, neighboring wells, or the aquifer.

## Surface Seal

Surface seals are installed in modern well construction to prevent surface water from following the outside of well casing to the aquifer. Typically, a larger diameter bore is drilled, then a smaller permanent casing installed, and the space between the borehole wall and casing is filled with Bentonite clay or cement as a sealant.

A typically 6-IN drilled well should have a 10-IN diameter seal 18-FT deep.

**It is not practical to dig up and discover the presence and/or condition of a surface seal in most cases. If evidence is not readily discovered from the surface, the inspection may indicate that the seal is not present.**

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## Was a surface seal found?

The presence of a surface seal indicates a more modern construction. Just because a surface seal wasn't found within the scope of this inspection does NOT mean it does not exist - it's possible the seal is buried under topsoil/grading completed after construction was finished. If there is a Water Well Construction Report properly filed for the well with the Department of Ecology, it may indicate that the seal is actually present, even if not found at the time of inspection.

Yes

"Well report shows an 18.5 ft bentonite surface seal."

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## Surface Seal Condition

**Red means there is a failure or there is a violation of code, yellow means caution or there will be a future issue, and green indicates a satisfactory condition.**



## Technician Comments & Follow Up

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### Technician Comments

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### Estimates and/or Recommendations

- No repairs/estimates required at this time.