

Certified Drilling Log



OWNER OF LAND: VSW

ADDRESS: Kachemak Selo

LEGAL DESCRIPTION Well 02

DATE: 11-3-25

PERMIT NUMBER: _____ DATE OF ISSUE: _____

TAX IDENTIFICATION NUMBER _____

Is well located at approved permit location: ☐ Yes ☐ No

Method of Drilling: ☒ air rotary ☐ cable tool

Depth of Well: 150

Casing Type: Steel Wall thickness .250 inches

Diameter: 6 inches, depth 104 feet

Liner type _____

Static Water Level: _____ feet

Recovery Rate _____ ☐ gpm ☐ gph

Method of Testing Air

Well Intake Opening Type: ☐ open end ☒ open hole

☐ Screened Start _____ feet Stopped _____

☐ Perforations Start _____ feet Stopped _____

Grout Type: Bentonite Volume: 200lbs

Depth: from 2 feet, to 42 feet

Well Disinfected Upon Completion: ☒ yes ☐ no

Method of Disinfection: Chlorine 50 PPM

Comments:

Well not viable for community well

Bore Hole Data

Depth
From To

0 2

2 4

4 22

22 50

50 56

56 60

60 112

112 145

145 150

Casing Stickup

Overburden/Organics

Brown clay

Shale with coal seams

Sandstone conglomerate

Shale

Sandstone conglomerate

Fine silty sandstone

Shale

Drillers Name: Cole Sullivan

b. Wellfield

In October 2025, Sullivan Water Wells drilled four wells in Kachemak Selo. Well 1A and Well 1B were drilled on the proposed site. Well 2 and Well 3 were drilled east of Kachemak Selo. Well 2 and Well 3 did not produce usable water³. Field reports are included in Appendix C. Well logs are included in Appendix D. Table 4-2 summarizes the well details from March 2026.

For all of the wells, a dual rotary air drill was used. The annular space between the casing and the bore hole was sealed using granulated bentonite. Bentonite seal depths were estimated based on volumes of bentonite used. Casings lengths were welded together, and each has a sanitary survey. All wellheads are two feet above grade. None of the well sites are in low lying areas or flood zones. The driller submitted well logs to the State of Alaska' Well Log Tracking System.

Table 4-2: Well Details

Item	Well 1A	Well 1B	Well 2	Well 3
Casing Diameter (in)	6	6	6	6
Well Depth (ft)	150	85	150	110
Water Encountered	Yes	Yes	No	No
Estimated Flow Rate (gpm)	3	30	N/A	N/A
Static Water Depth (ft btc)	54	16	N/A	N/A
Latitude/Longitude	59.79649 N 151.07966 W	59.79652 N 151.07966 W	59.80222 N 151.05951 W	59.80519 N 151.05707 W

Well 1A was the first well drilled. Well 1A had two distinct water layers.⁴ The first layer was between 50 and 100 feet btc in a silty sand. This layer is likely a confined layer because between 28 to 33 feet btc there was a dry medium plasticity silt with sand. Below that there was a dry layer of silt with sand between 33 to 50 feet btc. The second water layer was found between 140 and 150 feet. A gray, soft clay separated the two layers. The drillers reported that the first layer of water was clear and tasted good. They reported that the second layer of water was less clear and was salty. The casing when down to 105 feet below top of casing (btc) and remaining 46 feet was left unscreened. The static water level was 13 feet (btc) in October 2025. In March 2026, at the start of the pump test, the static water level had dropped to 54 feet btc. The drillers were directed to drill an adjacent well to tap into the first layer of water.

The next well (Well 1B) was drilled 20 feet north of Well 1A⁵. The well has similar geology as Well 1A. Well 1B was drilled to a depth of 85 feet and stopped at a clay layer. Thirty-one feet of four-inch 0.010 slot PVC well screen was installed from approximately 54 to 85 feet depth. This was done to maximize

³ During drilling, Well 2 had less than 7 gpm of water at 70 feet btc. No water was found between 70 to 130 feet btc. At 150 feet btc, less than 1 gpm of flow was found. In December 2025, the driller attempted to pump Well 2, but the flow was so low that it made pumping and sampling the water impractical. No water was encountered in Well 3. The driller began decommissioning Well 2 and Well 3 in March 2026 but did not finish because of frozen ground. The driller plans to complete decommissioning once the ground is thawed.

⁴ The driller well logs and WSP field well logs use different terminology when classifying soils. WSP field wells log terminology matches the soil lab test results. WSP field well log are the ones referenced in this report.

⁵ WSP was not on site when Well 1B was drilled, so there are no WSP field well logs for Well 1B.