



August 5, 2024

Jim Newton, PE, RG, CWRE
Principal – Engineer-Geologist
Cascade Geoengineering, LLC
Via email, newtonjim@hotmail.com

Re: Well #10 (PR#77-2022)
Oregon Water Utilities – Cline Butte Inc (PWS ID#01478)
Final Approval

Dear Jim:

Thank you for the additional information submitted for this project, including the well log (DESC 64609), pump test details, and water quality data.

A regional geologist with our program viewed the well log construction details and noted the following:

- The below ground well construction appears to meet construction standards.
- The area around the well is surficially mapped as Quaternary alluvial fan deposits (Qf). The well is construction into a confined aquifer composed of layered volcanics of the Deschutes Formation (Tdbp).
- The depth to the water-bearing zone was measured at 538 feet below ground surface (bgs) and the static water level rose to 528 bgs. The rise in the static water level indicates that the aquifer is most likely locally confined.

The above ground details appear to meet DWS construction standards.

Final approval is issued at this time, and the facility is approved for use.

Sampling schedules will be established, including 2 six-month rounds of lead and copper distribution monitoring at the original number of sample sites while the new source is in use. Tetrachloroethylene was noted in the sample results and will require additional monitoring.

If you have any questions, please feel free to call me at (971) 201-9794.

Sincerely,

A handwritten signature in black ink, appearing to read 'C. Gentry', with a stylized flourish at the end.

Carrie Gentry, PE
Regional Engineer
Drinking Water Services

cc: Chantal Wikstrom, REHS, OHA/DWS
Jeff Freund, REHS, Deschutes County Health Department
Brett Limbeck, Oregon Water Utilities, blimbeck@swcc.com