

How do you deal with VOC volatilization in low water volume wells as a result of temperature increase caused by a pump heating up in the water?

There are some studies showing that the temperature increase in the water column from some pumps can be fairly significant. Specifically, variable speed, electric submersible pumps can cause a significant amount of heating, not only in the sample collected, but also in the water in the well itself. The best way to avoid this is to use peristaltic pumps if you are within the suction lift limit of about 10 meters/30 feet (on a practical basis, it's really closer to 8 meters/25 feet). The other alternative if the well is deeper than that, is to use an air-powered pump such as a bladder pump. Devices such as bladder pumps and peristaltic pumps can do a better job avoiding any concern at all about losing VOC to heat.