Quanics
Engineering Water Solutions ®
P.O. Box 1520
Crestwood, Kentucky 40014-1520
1-877-QUANICS
www.quanics.net

Advanced Treatment Case Studies

SITE PROFILE
DATE 12-06-06
ENGINEER YOUR COMPANY
Glennallen, Alaska
Treatment = AeroCell Open Cell Foam Media
Sizing = 650 gpd
Site Challenges = Classified fill installation placed over wetlands and permafrost.
Solution!
A QUANICS Above ground advanced treatment shed with recirculation.

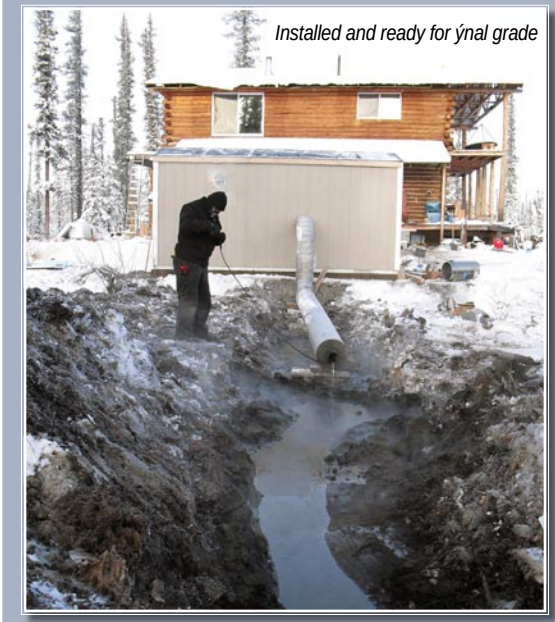
Garness Engineering Group, Ltd. (GEG) based out of Anchorage, Alaska was contracted by the Alaska Native Tribal Health Consortium (ANTHC) to provide engineering services associated with the design and installation of septic systems throughout their South-central region. In 2009, GEG was tasked with providing a septic system for one of ANTHC's residential customers located in Glennallen, Alaska. Glennallen is located near the foothills of the scenic Wrangell Mountains and St. Elias National Park. It is a sub-arctic climate, with long, extremely cold winters, and relatively warm summers.

Upon making a site visit, it soon became apparent that the lot presented some unique challenges that would prohibit the installation of a conventional septic system. This particular property consisted of a home constructed on classified fill placed over wetlands and permafrost. Given the presence of wetlands, surface waters, permafrost, and shallow groundwater, excavation of a test hole and performing percolation tests was not feasible. GEG had installed numerous Quanics Aerocell systems throughout Alaska, including Quanic's mobile Synergy systems. For this property, GEG worked with Quanics to develop a residential sized Synergy unit that would meet the stringent secondary treatment and disinfection effluent requirements established by the State of Alaska Department of Environmental Conservation (ADEC). GEG presented the Synergy concept to the ANTHC program manager, Jeff Bonin, who was impressed with the concept, but stipulated that it must be energy efficient, easy to maintain, reliable, and require no operator.

The system was installed in November of 2009, when the outside temperature reached -30° F. Given that the unit was delivered to the jobsite fully constructed, all that was required in the field was to provide power and a few pipe connections. Construction went smoothly and the unit was commissioned within two days of delivery. The unit is equipped with a modem that will contact the property owner in the event of an alarm condition.

Since installed the unit has performed flawlessly and the property owner has expressed satisfaction regarding the reliability and performance of their new Synergy system.

Port of Anchorage loaded to truck to site


Installed and ready for final grade

GARNESS ENGINEERING GROUP, Ltd.
CONSULTANTS & GENERAL CONTRACTORS

3701 East Tudor Road, Suite 101, Anchorage, Alaska 99507
Ph: (907) 337-6179 Å Fax: (907) 338-3246
www.garnessengineering.com

Advanced Treatment Systems Certified Dealer