

## Produced Water and Wastewater Treatment (WWT) S.O.Q.



Red Dog Mine WWT Plant  
Provided the design, procurement and construction engineering services for the new WWT Plant. 2004 to 2005.



Kodiak Wastewater Treatment Plant  
Provided the design and construction engineering services for the new



Kodiak WWT Plant. 1998 to 2000.  
CPAI Water Injection Well System  
Provided truckable module design for the Beluga River Unit Water Injection Well System. 1992 to 1993.

With more than 37 years of engineering and design experience in Alaska and the Pacific Northwest, Great Northern Engineering, LLC (GNE) is familiar with, and appreciates the need for, quality engineering and construction in an arctic environment. Project budgets range from \$25,000 to over \$25 million.

### **GNE Project Capabilities:**

- Project Management, Contractor Selection
- Project Controls and Schedule Planning
- Geotech and Survey
- Civil and Site Prep
- Structural and Foundations
- Architectural and Code Analysis
- Mechanical, Tanks, Piping, and HVAC
- Pipelines and Transmission
- Truck and Rail Loading / Unloading
- Utilities and Tie-ins
- Electrical and Instrumentation
- Control Systems and SCADA
- Permitting
- Constructability Reviews
- Construction and Field Engineering Support
- Startup, Commissioning, and Turnover
- Facility As-builts
- O&M Documentation, Spare Parts
- Personnel Training
- HAZOP, SimOps, Cause & Effect, QA/QC  
API 520, 521, 570, 537, 650, 653, 1169, 2000, SPCC, STI SP001



Kotzebue Water Treatment Facility  
Provided the design and construction engineering services for the new Kotzebue WWT Plant and storage tank. 1984 to 1986.



Denali Hotels WWT Expansion  
Provided three design options for the expansion of the Denali Properties WWT Plant. 2018 to 2019.



Kenai LNG Plant Produced Water Storage Tanks  
Provided the secondary containment design for the Injection Well Facility produced water tanks. 2005 to 2006.



AWWU WWT Generator & Fuel Systems  
Provided the upgrade design for the AWWU WWT Plant standby generator and fueling system at seven separate sites. 2009 to 2011.