



# THERMAL

## Technology:

Electrical Resistance Heating

## Electrode Pattern:

76 electrodes - Three Phase Array

## Treatment Area:

16,300 square feet

## Treatment Interval:

Variable (55-ft bgs max)

## Treatment Volume:

21,900 cubic yards

## Extraction System:

MPE and SVE

## Liquid Phase Treatment:

OWS separation, LPGAC treatment

## Vapor Phase Treatment:

Thermal Oxidizer

## Regulatory Driver:

Navy, Washington State Dept. of Ecology, EPA

# JACKSON PARK NEX GAS STATION SOURCE AREA REMEDIATION

NAVFAC CONTRACT NO. - N62470-13-D-4808

BREMERTON, WA

**Summary** - The Group was contracted by Tetra Tech EC, Inc. (TtEC) through KEE Solutions a SDVOSB as the prime contract holder, to remediate the Site using a combination of continuous electrical resistance heating (ERH) and periodic dual-phase extraction (DPE). The Group worked with the Thermal Remediation technology vendor, Global Remediation Solutions (GRS), a company at that time being led by Michael Dodson, Robert D'Anjou, and Allen Swift, **representing a full circle project case study for our team**, as these three individuals have since joined The Group as part of our core team of Thermal Remediation Experts.

The Jackson Park Navy Exchange (NEX) Gas Station Leak Area is located within the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) site near the city of Bremerton, Washington. The selected treatment remedy for the source area was electrical resistive heating (ERH) with dual phase extraction (DPE) This in situ treatment technology was performed in the upper 55 feet of the subsurface, throughout the region of Vashon Till soil and perched groundwater that exceeded cleanup levels and in the upper portion of the aquifer with the highest dissolved concentrations. A total of 76 electrodes were constructed and installed at 15-ft on-center to treat a volume of 21,900 cubic yards to depths up to 52-ft bgs. The contaminants of concern (COCs) at the Jackson Park Site are gasoline range total petroleum hydrocarbons (TPH-G) with an appreciable quantity of BTEX compounds. 19,000 lbs of COCs were removed in the vapor phase and dissolved phase concentration of TPH-G and BTEX were reduced by 99%.

