

Jackson Park NEX Gas Station Leak Area

SOURCE AREA REMEDIATION · NAVFAC NORTHWEST · BREMERTON, WASHINGTON



CLIENT
NAVFAC Northwest, through Tetra Tech EC, Inc.

CONTRACT
N62470-13-D-4808

TECHNOLOGY
ERH with periodic DPE/MPE

ELECTRODES
76, three phase array, 15 ft centers

TREATMENT VOLUME
21,900 cubic yards

DEPTH
Treated to 52 ft bgs

CONTAMINANTS
TPH-G and BTEX

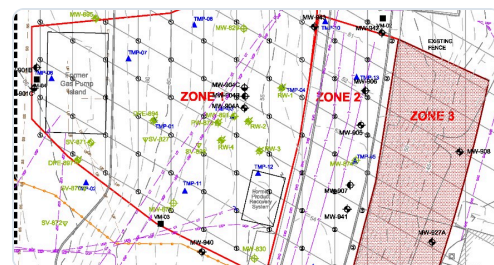
REGULATORY DRIVER
EPA and NAVFAC NW (CERCLA)

SUMMARY

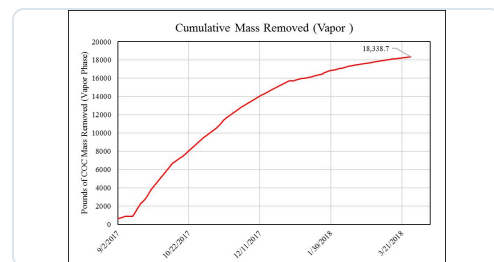
The Jackson Park NEX Gas Station Leak Area lies within a CERCLA site near Bremerton, Washington. Gasoline range petroleum hydrocarbons (TPH-G) with appreciable BTEX impacted the upper 55 feet of Vashon Till soil and perched groundwater.

Under contract to Tetra Tech EC, Inc. (TtEC), ERG remediated the source area with continuous electrical resistance heating (ERH) and periodic dual-phase extraction (DPE), partnering with Global Remediation Solutions (GRS) to build and operate the in situ thermal remediation system. GRS was then led by Michael Dodson, Robert D'Anjou and Allen Swift.

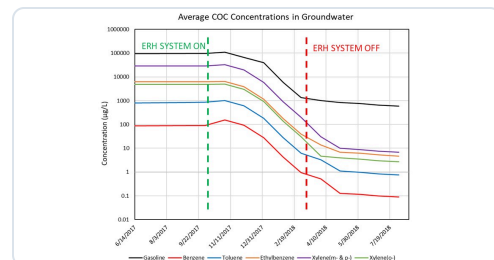
Seventy-six electrodes on 15 ft centers in a three phase array treated 21,900 cubic yards to 52 ft below ground surface. The system removed about 19,000 lbs of contaminants of concern and reduced dissolved TPH-G and BTEX concentrations by 99%. The project was completed in 2018.



Electrode layout and treatment zones.



Cumulative mass removed in the vapor phase, Sept. 2017 to March 2018.



Average groundwater concentrations before, during and after ERH.

19,000 lbs

Contaminants removed, vapor and dissolved

21,900 yd³

Treated in vadose and saturated zones

99%

Reduction in dissolved TPH-G and BTEX

2018

Project completed