Naval Weapons Industrial Reserve Plant, Bethpage, NY
Groundwater Investigation

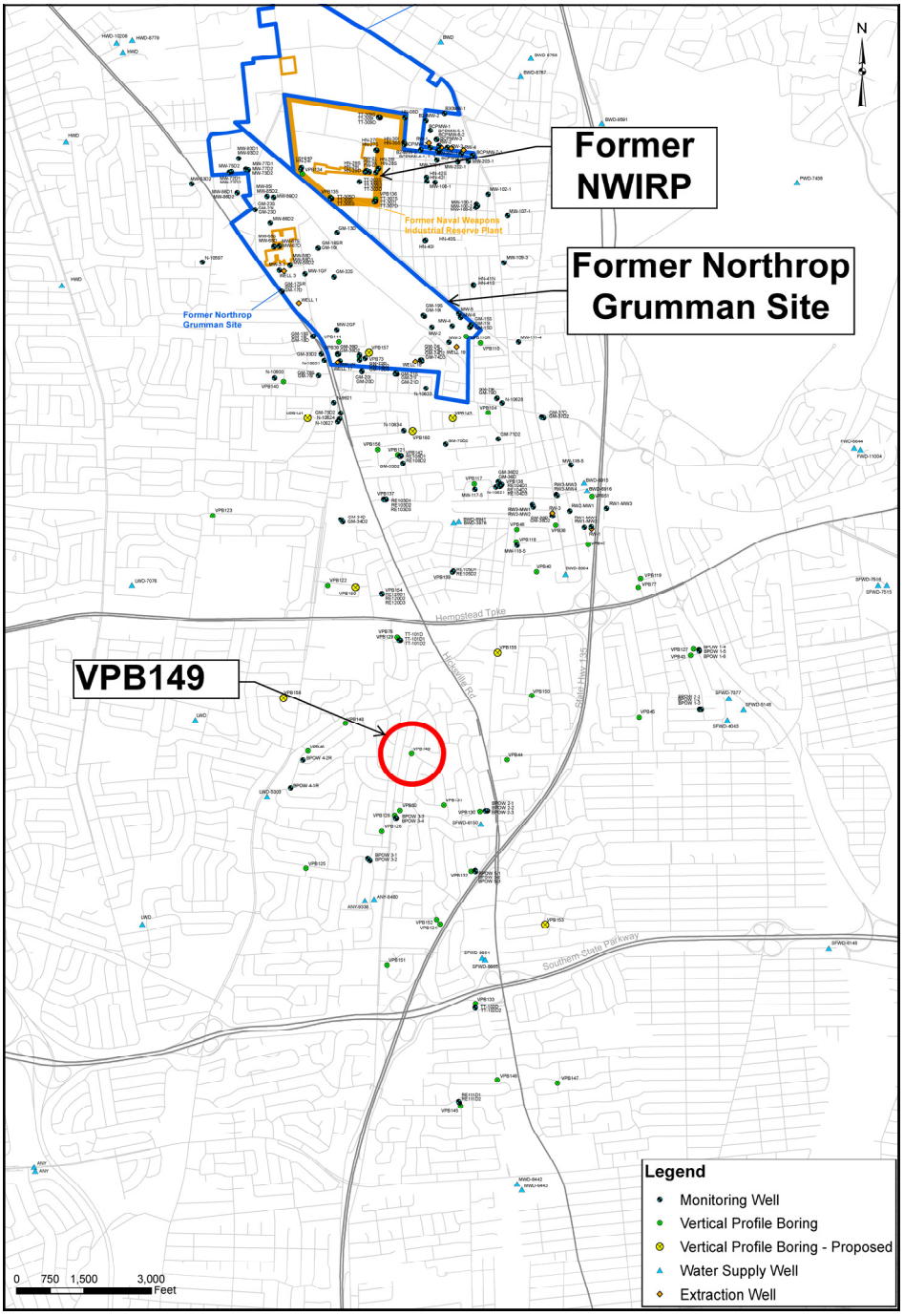
VPB149 Installation Summary

Vertical Profile Boring Installation Summary — March 2015

Historic storage and/or disposal practices at the former ***Naval Weapons Industrial Reserve Plant Bethpage (NWIRP Bethpage)*** and adjacent former Northrup Grumman properties resulted in groundwater contamination in the local area. Over the last several decades, ***volatile organic compounds (VOCs)*** that originated from these facilities have moved into the groundwater and off-property with the groundwater flow. The contamination has generally moved to the south while sinking downward to greater depths.

The Navy estimates the VOC contamination covers approximately 3,000 acres, but it is not distributed evenly throughout the area. Instead of a single, contiguous plume, there are multiple widely dispersed plumes or "fingers", meaning VOCs are present in the groundwater at different concentrations and different depths in different areas.

The Navy is conducting a groundwater investigation that includes the installation of ***vertical profile borings (VPB)*** to gather more information on the location, depth, and concentration of contaminants in the groundwater plume. Installation of a VPB involves drilling a deep hole (up to 1,000 feet deep) and taking samples of the groundwater at various depths. One to three permanent monitoring wells are typically installed adjacent to the VPB hole, and the depth of the well(s) is determined based on the results of the sampling conducted during the VPB installation.



Please note the VPB investigation is sampling raw groundwater, meaning it has not been treated to remove contaminants. Raw groundwater is not what is distributed by the water districts to the public. All water distributed by the water districts is collected from their own water supply wells, and is regularly tested and treated by the districts to ensure a safe water supply.

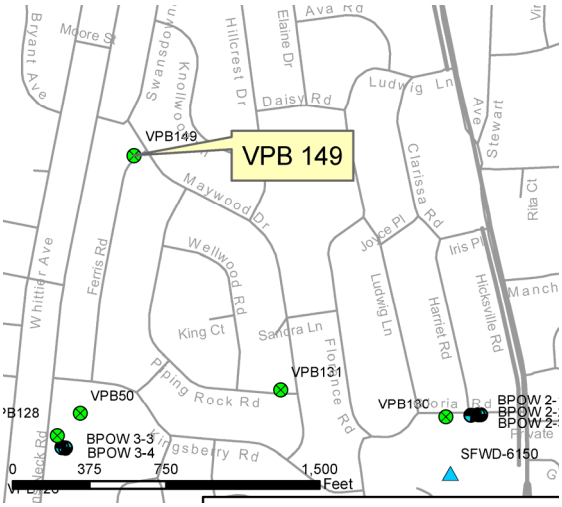
Vertical Profile Boring Installation Summary — March 2015

The VPB 149 investigation focused on ***Trichloroethene (TCE)*** and ***Tetrachloroethene (PCE)***, which are two primary VOCs in the NWIRP Bethpage groundwater contamination. The groundwater results were compared with ***Maximum Contaminant Levels (MCLs)***, which are used by the New York State Department of Environmental Conservation for determining when water is safe for distribution. The MCL for both TCE and PCE is 5 micrograms per liter (ug/L) or part per billion.

VPB 149 Investigation Summary

- *VPB 149 was completed between September 12, 2014 and October 20, 2014;*
- *The final boring was 948 feet (ft) deep;*
- *40 groundwater screening samples were collected at different depths;*
- *The table contains TCE and PCE levels; bolding indicates an exceedance of the NYSDEC MCL.*

Permanent wells are planned on being installed at the VPB 149 location. Follow-on monitoring of wells will be part of the Navy's Environmental Restoration Program. Results of monitoring will be discussed at the RAB meetings and will be available on-line at the information repository website for review.



Depth	PCE (ug/L)	TCE (ug/L)
58 - 60 ft	< 0.50	< 0.50
98 - 100 ft	< 0.50	< 0.50
148 - 150 ft	1.1	3.2
198 - 200 ft	1.3	**11**
218 - 220 ft	4.0	**9.6**
238 - 240 ft	2.8	**8.1**
258 - 260 ft	< 0.50	< 0.50
283 - 285 ft	< 0.50	< 0.50
298 - 300 ft	< 0.50	< 0.50
318 - 320 ft	< 0.50	< 0.50
338 - 340 ft	< 0.50	< 0.50
358 - 360 ft	< 0.50	< 0.50
378 - 380 ft	< 0.50	< 0.50
418 - 420 ft	< 0.50	< 0.50
438 - 440 ft	< 0.50	< 0.50
458 - 460 ft	< 0.50	< 0.50
478 - 480 ft	< 0.50	< 0.50
498 - 500 ft	< 0.50	< 0.50
518 - 520 ft	< 0.50	< 0.50
538 - 540 ft	< 0.50	< 0.50
558 - 560 ft	< 0.50	< 0.50
578 - 580 ft	< 0.50	< 0.50
603 - 605 ft	< 0.50	< 0.50
618 - 620 ft	< 0.50	**95**
638 - 640 ft	< 0.50	**100**
658 - 660 ft	< 0.50	**53**
678 - 680 ft	< 0.50	0.61
698 - 700 ft	< 0.50	< 0.50
718 - 720 ft	< 0.50	**8.8**
738 - 740 ft	< 0.50	**16**
758 - 760 ft	< 0.50	< 0.50
808 - 810 ft	< 0.50	< 0.50
818 - 820 ft	< 0.50	< 0.50
838 - 840 ft	< 0.50	< 0.50
858 - 860 ft	< 4.0	< 4.0
878 - 880 ft	< 2.0	< 2.0
903 - 905 ft	< 5.0	< 5.0
918 - 920 ft	< 4.0	< 4.0

FOR MORE INFORMATION

Copies of all official environmental program documents are available for review at an information repository located at Bethpage Public Library, 47 Powell Avenue, Bethpage, NY 11714 (514)931-3907.

Additional information on the NWIRP Bethpage Environmental Restoration Program is available online at http://go.usa.gov/DyXF or by contacting: Public Affairs Officer, NAVFAC Mid-Atlantic, 9742 Maryland Ave, Norfolk VA 23511-3095 or Thomas.kreidel@navy.mil