

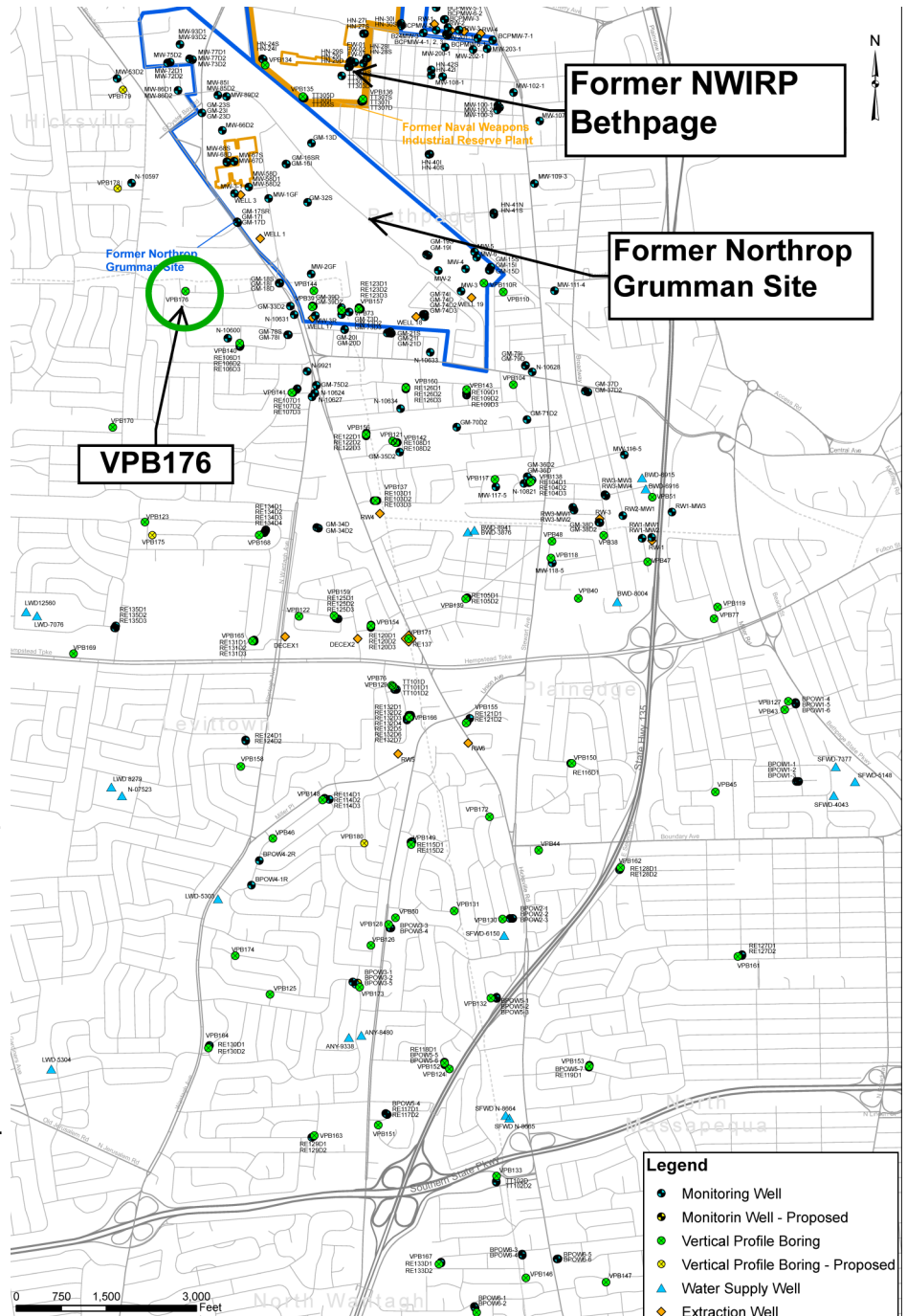
Vertical Profile Boring Installation Summary

Installed June 2019

Historic storage and/or disposal practices at the former **Naval Weapons Industrial Reserve Plant Bethpage (NWIRP Bethpage)** and adjacent former Northrop 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 approximately 1,000 feet below ground surface [bgs]) 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.



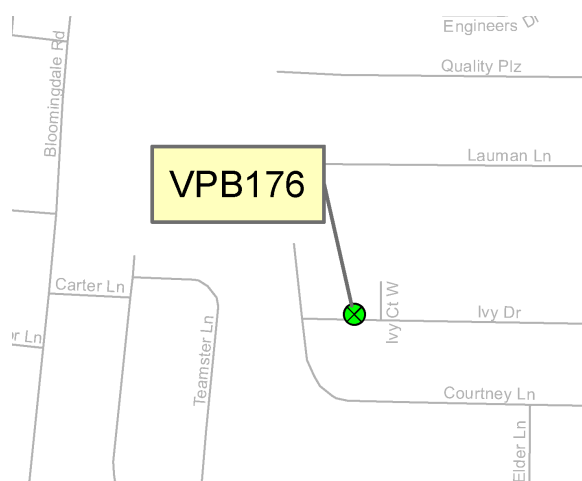
Please note the VPB investigation is sampling raw groundwater, meaning it has not been treated to remove contaminants. Raw groundwater is not what is distributed by the water districts to the public. All water distributed by the water districts is collected from their own water supply wells, and is regularly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

The VBP176 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 Health for determining when water is safe for distribution. The MCL for both TCE and PCE is 5 micrograms per liter (ug/L) or parts per billion.

VBP176 Investigation Summary

- VBP176 was completed between May 16, 2019 and June 28, 2019 ;
- The final boring was 870 feet (ft) deep and reached the Raritan Clay below the Magothy Aquifer;
- 36 groundwater screening samples were collected at different depths;
- The table contains TCE and PCE levels; **bolding indicates an exceedance of the NYSDEC MCL**; ND denotes there were no detections in the sample.
- As of March 2020 no wells were installed at VBP176.

Depth Interval (ft bgs)	TCE (ug/L)	PCE (ug/L)
58-60	ND	1.3
98-100	0.72	ND
148-150	0.58	ND
208-210	2	0.57
228-230	1	0.45
238-240	0.73	0.43
258-260	3.3	0.9
283-285	30	86
308-310	28	44
318-320	6.3	39
338-340	140	580
358-360	12	48
378-380	57	140
398-400	34	180
418-420	170	400
438-440	82	450
463-465	15	100
478-480	23	110
498-500	430	51
523-525	46	9.3
538-540	75	10
558-560	5.9	0.76
583-585	0.59	ND
608-610	5.1	0.56
643-645	ND	ND
658-660	ND	ND
688-690	ND	ND
708-710	ND	ND
718-720	ND	ND
738-740	ND	ND
763-765	ND	ND
778-780	ND	ND
798-800	ND	ND
818-820	ND	ND
838-840	ND	ND
843-845	ND	ND



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, NAVFAC Mid-Atlantic, 9324 Virginia Ave, Norfolk VA 23511-3095, 757-341-1411.