Naval Weapons Industrial Reserve Plant, Bethpage, NY
Groundwater Investigation

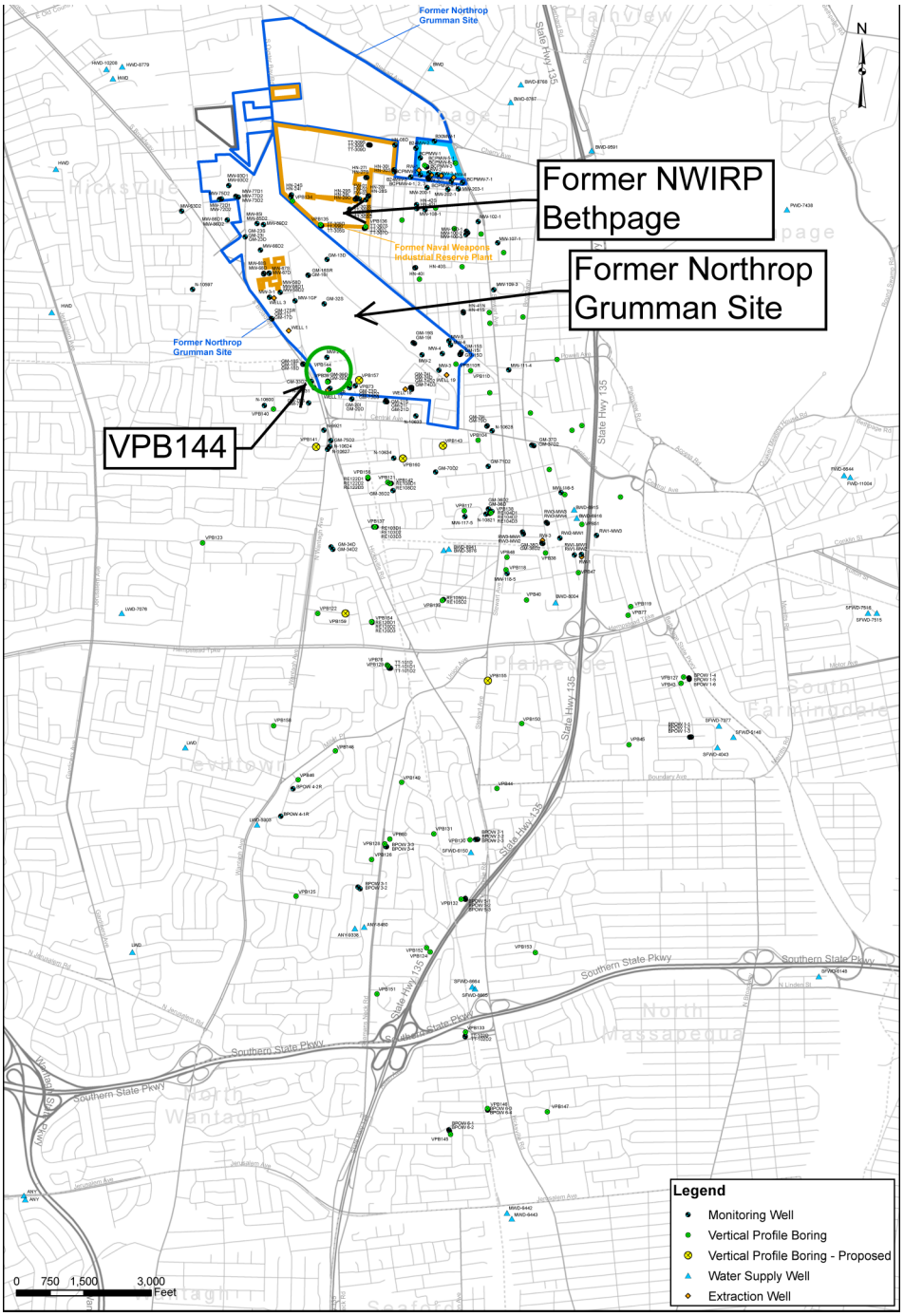
VPB144 Installation Summary

Vertical Profile Boring Installation Summary — Installed January 2014

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.



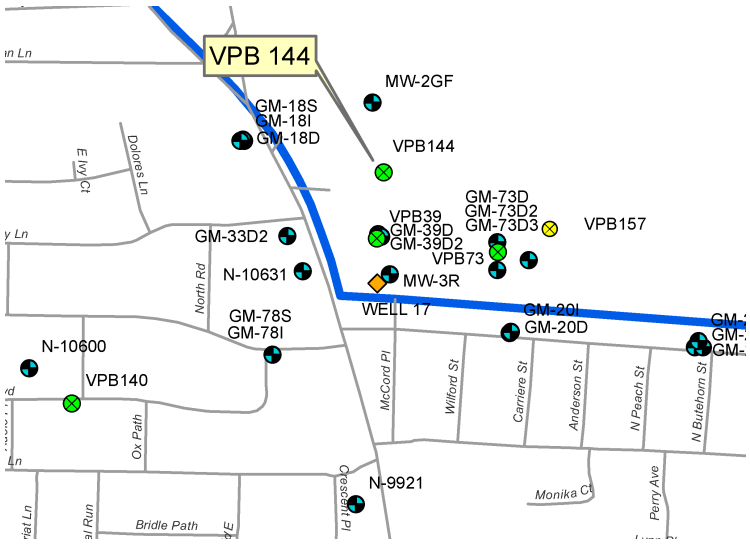
Please note the VPB investigation is sampling raw groundwater, meaning it has not been treated to remove contaminants. Raw groundwater is not what is distributed by the water districts to the public. All water distributed by the water districts is collected from their own water supply wells, and is regularly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

Vertical Profile Boring Installation Summary — Installed January 2014

The VPB144 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.

VPB144 Investigation Summary

- *VPB144 was completed between November 26, 2013 and January 23, 2014;*
- *The final boring was 890 feet (ft) deep and reached the Raritan Clay below the Magothy Aquifer;*
- *32 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 VPB144.



Depth interval (ft bgs)	TCE (ug/L)	PCE (ug/L)
58 - 60 ft	0.33	ND
103 - 105 ft	ND	ND
148 - 150 ft	**28**	0.49
198 - 200 ft	**5.8**	ND
223 - 225 ft	0.57	ND
238 - 240 ft	0.85	ND
258 - 260 ft	ND	ND
278 - 280 ft	**50**	0.53
308 - 310 ft	**9.9**	ND
318 - 320 ft	**5.2**	ND
338 - 340 ft	**6.7**	ND
363 - 365 ft	**11**	ND
378 - 380 ft	**20**	ND
423 - 425 ft	**7.8**	ND
438 - 440 ft	1.9	ND
458 - 460 ft	**150**	0.80
478 - 480 ft	**1200**	**5.7**
498 - 500 ft	**7600**	**52**
518 - 520 ft	**200**	**420**
538 - 540 ft	**22**	**28**
568 - 570 ft	1.1	0.69
598 - 600 ft	0.90	1.2
618 - 620 ft	ND	ND
643 - 645 ft	ND	ND
658 - 660 ft	ND	ND
688 -690 ft	ND	ND
698 - 700 ft	ND	ND
738 - 740 ft	ND	ND
758 - 760 ft	ND	ND
798 - 800 ft	ND	ND
818 - 820 ft	ND	ND
838 - 840 ft	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.