



Dwyer Property NPL Site (MD0313)

What You Need to Know

Site Location

The Dwyer Property site is located northeast of the intersection of Maryland Route 545 (Blue Ball Road) and Maryland Route 279 (Elkton Road/Newark Avenue) in Cecil County, Maryland. The 72.9-acre property is located northwest of Elkton. Dogwood Run flows southwesterly through the property to Little Elk Creek. Dwyer Property was formerly part of Triumph Explosives Industries (TEI), which operated during World War II (WWII). The successor businesses of TEI surround the site, principally to the north and west.

Site History

The property was rural prior to 1933. From 1933 until 1935, Triumph Fusee and Fireworks manufactured fireworks and flares on a five-acre portion of the Dwyer Property. In 1935, Triumph contracted with the U.S. Navy to produce float lights. In 1938, the company changed its name to Triumph Explosives, Inc. and converted to the manufacture of munitions and explosives. During WWII, the site was rebranded as Triumph Explosives Industries (TEI) and operations were expanded to north of the site and west of Blue Ball Road.

TEI operated through WWII on about 1,200 acres. TEI was divided into two areas, described as the Army side and the Navy side. The Army side (including the site) was east of Blue Ball Road, and the Navy side was west of Blue Ball Road. Following the closure of TEI after WWII, the Army side was divided into two properties, which are now designated as Dwyer and Vicon. The Navy side was divided into several parcels. Triumph Industrial Park and the ATK/Thiokol plant now occupy a major portion of the former Navy side.

After TEI ceased operations, the site was sold in 1946 to Bowers Battery and Spark Plug Company, which produced carbon batteries. In 1948, Bowers sold the property to Aerial Products, Inc. (API), which produced munitions, signal flares, and other items. API conducted operations on both sides of Blue Ball Road on a 225-acre facility. In 1958, Mr. Martin Dwyer purchased the property and reportedly grazed cattle and produced flares until 1972, when operations were discontinued. Mr. Dwyer transferred the property to several heirs in 1986. Since then, the property has become overgrown with vegetation.

Environmental Investigations and Actions

The main contaminants of concern, in both soil and groundwater, are chlorinated volatile organic compounds (CVOCs), arsenic and lead. Other contaminants include perchlorates, 1,4-Dioxane, nitroaromatic compounds and semi volatile organic compounds (SVOCs). The potential for munitions and explosives of concern (MEC) is also being investigated.

Maryland Department of the Environment (MDE) Lead Regulator – 1989 to 2011

In 1989, MDE began investigating the site for environmental contamination. MDE completed a Preliminary Site Assessment (PA) and Screening Site Inspection (SSI) in 1989. These investigations identified CVOCs in the groundwater and in samples from Dogwood Run. In 2001, MDE completed an

Expanded Site Investigation (ESI) that confirmed the presence of CVOCs in groundwater as well as organic and inorganic contamination in the surface and subsurface soils. In April 2002, MDE contracted a soil boring investigation, which confirmed the previous results.

In May 2005, a soil gas survey was conducted at the adjacent Rudy Park community beneath selected building foundations using angled Direct Push Technology (DPT). The investigation did not identify a potential indoor air problem from VOCs. In October 2005, the Remedial Investigation (RI) identified two CVOCs plumes, one along the northern border and a second plume located in the southwestern portion of the property that has migrated off-site.

Membrane Interface Probe (MIP) sampling identified a hot spot area (exceeding industrial standards) in a previously uninvestigated portion of the site and trichloroethene (TCE) in groundwater at high concentrations. During this time, MDE requested that the Environmental Protection Agency (EPA) formally evaluate the site for possible listing on the National Priority List (NPL).

Environmental Protection Agency (EPA) Lead Regulator – 2011 to the Present

On March 10, 2011, Dwyer Property was listed on the NPL and EPA assumed oversight and management of the project. MDE continues to provide State oversight of the Dwyer investigation, in support of EPA.

In 2011, EPA collected soil, groundwater, and soil gas samples near the site and the Rudy Park public housing units. Results from the sampling did not identify the presence of site-related contamination.

In 2012, EPA conducted an unexploded ordnance (UXO) survey in an area of the site used for waste disposal. The survey did not reveal the presence of UXO in the survey area. However, surficial UXO has been found at other locations across the site.

EPA also performed a removal site evaluation of two source areas in 2012. These source areas included a collapsed building area with piles of residual waste and an area where deteriorated drums were unearthed during the installation of a sewer line near Dogwood Creek. Analytical results indicated that these sources were releasing elevated concentrations of lead and arsenic into the environment. The resulting Removal Action was conducted in December 2016. Honeywell, the potentially responsible party (PRP) for Dwyer Property, performed the Removal Action under the supervision of EPA to address the two areas identified above. Approximately 98 cubic yards of arsenic-contaminated soil and 135 cubic yards of lead-contaminated soil were removed from the site. The areas were backfilled and restored in December 2016.

In February 2016, EPA issued a Unilateral Administrative Order (UAO) for Honeywell to perform a Remedial Investigation and Feasibility Study (RI/FS) at the Dwyer site. Field activities performed in 2016 included a munitions and explosives of concern (MEC) survey, reconnaissance of 214 potential areas of interest, and seismic surveys.

The soil contamination, designated as Operable Unit 1 (OU1) by EPA, was investigated at over 200 potential areas of interest in five phases between 2018 and 2024. The investigations consisted of MEC surveys, soil sampling in test pits, and shallow soil borings.

The groundwater contamination, designated as Operable Unit 2 (OU2) by EPA, was investigated between 2019 and 2024. Presently, 128 monitoring wells have been installed for the Dwyer investigation (on-site, off-site, and background locations). CVOCs were detected in perched, shallow,

and deep groundwater. 1,4-Dioxane was detected in on-site and off-site samples but was not detected in on-site background samples. Nitroaromatic compounds were detected in on-site samples but were not detected in off-site samples. Perchlorate was detected in on-site samples and off-site samples. Surface water and sediment samples collected from Dogwood Run and Little Elk Creek revealed elevated levels of CVOCs and perchlorate.

Several other events took place in 2023-2024 including underground storage tank/vault removals, subsurface geophysics, seismic surveys, and MEC surveys.

The Conceptual Site Model (CSM) has been under development by Honeywell for several years. When completed, the CSM will include the assessment of chemicals of potential concern (COPCs), hydrogeological conditions and migration pathways, human receptors and exposure pathways, and ecological receptors and exposure pathways.

Background sampling of the soil and groundwater have also been conducted and this work is continuing. Surface water and sediment samples are also planned for Dogwood Run and Little Elk Creek. The latest document submitted to EPA and MDE is the 2025 Background Study Work Plan.

Current Status

Honeywell is currently conducting a Remedial Investigation in accordance with the UAO.

Investigations also have occurred at the property north of the Dwyer Property, known as the Vicon site, from 1990 to 2010. A prospective purchaser is evaluating a portion of the Vicon property that adjoins Dwyer. The prospective purchaser intends to investigate the southern parcel of Vicon and provide the data to EPA and MDE.

Planned or Potential Future Action

Once the RI is completed, the FS will be prepared to evaluate the feasibility of cleanup options for the site. Following the FS, a Proposed Remedial Action Plan (PRAP) will describe EPA's preferred remedial alternative to the public. After the public comments on the PRAP have been reviewed by EPA and MDE, the EPA will release the Record of Decision (ROD), which will describe the cleanup action selected by EPA. The Remedial Design and Remedial Action will then implement the cleanup action.