

## **Lyme-Old Lyme Middle School Oil Release**

### **August 1, 2022**

At approximately 8:00 AM a notification was received from our Building Management System (BMS) which is a computer-based system that alerts maintenance staff of issues related to the HVAC system. The alert indicated that a boiler failed to fire when the system called for heat. Upon inspection, it was discovered that a fuel line ruptured at a fitting and was spilling oil onto the boiler room floor. Cleanup began under the supervision of the CT Department of Energy and Environmental Protection (DEEP) around 8:30 AM that same morning.

In addition to vacuuming up the spilled oil, 40 tons of contaminated soil was removed from the area and the boiler room was cleaned of all residual oil. This incident was discussed at length at the August 3, 2022 Board of Education meeting which is available at:

<https://www.youtube.com/watch?v=KlkZvwMJnEc>

### **August – January**

Under the advisement of DEEP, Kropp Environmental, a Licensed Environmental Professional (LEP), and CIRMA (our insurance company), we continued to extract any possible remaining oil from the ground via a vacuum truck and drilled eleven monitoring wells as a way to determine if any petroleum product was migrating from the spill site. The consensus among these professionals was that there was no evidence to support that the spill would impact neighboring wells or our potable water wells.

Results from one monitoring well (MW7) on December 1, 2022 showed evidence of petroleum products in the groundwater. This result required Kropp Environmental to notify their client (Region 18 Schools) and DEEP. DEEP was notified by Kropp Environmental on Jan. 11, 2023.

### **February**

The initial tests of private wells on Lyme St. came back showing no contamination due to the spill. One well did show some levels of contamination, but it has been determined that it was not in relation to the spill. A retest of that well did not produce any detectable contaminants.

As a public supplier of water, we are required to test our water supply on a quarterly basis. On February 2, 2023, Whitewater (our certified water system administrator) collected a full suite of samples from each of our active potable water wells utilizing additional parameters as recommended by DEEP based on the oil spill that occurred at the Lyme-Old Lyme Middle School in August.

Chemicals were detected in potable water well number seven that belong to a class of chemicals called polycyclic aromatic hydrocarbons (PAH's). As a result, potable water well number seven was taken offline and water to our main campus was temporarily shut off. PAH's are present naturally in coal, crude oil, and gasoline. They are also formed when organic materials like coal, wood, garbage, and tobacco are burned. There are no enforceable drinking water standards for the PAH's found in well number seven. Even though there are no drinking water standards, we used the available health-based guidelines to inform our decision-making.

While not impossible, based on the distance, the direction of groundwater flow, the depth of the well, the time period elapsed, and the location of our potable wells, the probability that this contamination is related to the August oil spill is extremely low if not nonexistent. It is much more likely that the PAH's found in well number seven come from a different source which we are actively working to identify.

The test that resulted in us turning off the water was a test of undiluted potable water directly from well number seven. The water from well number seven would generally be mixed with water from three other wells and then pass through a chlorinating and pH adjusting system before being used on our campus. Since the spill, we have tested our water for Volatile Organic Compounds (VOC's) at the entry point (such as a faucet) on two separate occasions. VOC samples were collected from the entry point on 8/8/22 and 10/14/22 with no detections of oil-related compounds.

On February 14, 2023 entry point potable water test results were received showing that the water meets all regulatory standards for consumption with no detections of PAH's. Water to the main campus was turned back on with approval from the CT Department of Public Health.

### **Costs**

Region 18 has expended approximately \$75,000 out of the contingency portion (which is reported monthly at each Board of Education meeting) of the regular budget and has subsequently met the insurance deductible. These monies have covered the cleanup, installation of 11 underground monitoring wells to measure any activity in the ground near the site, disposal, testing, and other costs associated with the cleanup and monitoring. Our insurance carrier is now funding the ongoing process.