

Fact Sheet: Syosset School District Environmental Testing of South Grove Elementary

Summary of Test Results

The District has conducted tests of the air, soil, and ground water at South Grove Elementary School. None of the tests have yielded results that require action on the part of the District.

- **Radon Test Results:** Earlier this Spring, the District conducted radon testing of the indoor spaces of both the South Grove main building and the Annex. No radon levels exceeding the NYS standard were detected. The District will again test for radon during the 2018-19 school year. The results were posted here: <link>
- **Volatile Vapor Intrusion (VVI) Test Results:** All detectable concentrations reported for the sub-slab vapor and indoor air samples were well below published occupational health guidelines.
- **Subsurface Soil Test Results:** The results of the soil samples analysis did not indicate any detectable concentrations of volatile organic compounds (VOCs) or semi-volatile organic compounds (SVOCs) exceeding the applicable NYSDEC standards.
- **Ground Water Test Results:** The preliminary groundwater screening sample did not contain any volatile organic compounds (VOCs) at concentrations above the applicable NYSDEC Class GA groundwater standards and guidance values, though our preliminary tests of the aquifer at a depth of over 100 feet detected some semi-volatile organic compounds (SVOCs).

Important Information

- **Volatile organic compounds (VOCs)** include a variety of chemicals, some of which may have short- and long-term adverse health effects. When VOCs are released into the environment, they can transfer readily from soil or groundwater into a gaseous phase. VOC vapors are able to migrate through the soil. However, no VOCs at concentrations above applicable regulatory limits were found in the air, soil or water on the South Grove campus.
- **Semi-volatile organic compounds (SVOCs)** are a class of organic compounds which are not readily released as vapors from groundwater containing these compounds. They also have the potential for negative health effects on humans. "These compounds known as PAHs are most commonly formed by the incomplete combustion of natural (forest fires) or man-made sources (coal, wood burning, automobile exhaust) and are ubiquitous in the environment." (Presentation by JC Broderick & Co. to the Syosset Board of Education.) There is no pathway for exposure to these SVOCs at the South Grove campus for the following reasons:
 - SVOCs in soil and groundwater are not released as vapors thus they do not have the potential to migrate and impact the school.
 - The SVOCs were detected in groundwater at the top of the water table which occurs a depth of over 100 ft below grade level.
 - A layer of clay exists beneath the property (confirmed by observations during installation of the monitoring wells at the School) which would prevent upward migration of vapor phase organic contaminants.
- **Gas and vapor intrusion**, as defined by the EPA, is the migration of volatile organic compounds or volatile inorganic compounds into occupied buildings from underlying contaminated groundwater or soil. No VOCs were detected in the ground water or soil at concentrations above

standards and guidance values established by NYSDEC, which is consistent with the finding that no VOCs have migrated upwards to the buildings or grounds.

Additional Information Regarding Groundwater Testing:

- As the first well tests were preliminary, two additional monitoring wells have been installed at South Grove School. Once all three wells reach equilibrium with the surrounding formation, a second round of groundwater sampling and analysis will be conducted.
- The District will share the groundwater sampling results with NYSDEC and USEPA and local authorities as appropriate.
- When the results of the upcoming groundwater sampling are available, the District will post a summary on the District website.

Preliminary Groundwater Screening Raw Data:

Chemical Compound	NYSDEC Class GA Ambient Water Quality Standards/Guidance Values (µg/L)	MW-01 Grab Sample 8/22/2018
Syosset Central School District-60 Colony Lane, Syosset		
Semi Volatile Organic Compounds Detected at Concentrations Above NYSDEC Standards/Guidance Values		
Benzo(a)anthracene	0.002	0.133
Benzo(a)pyrene	ND	0.133
Benzo(b)fluoranthene	0.002	0.120
Benzo(k)fluoranthene	0.002	0.120
Chrysene	0.002	0.133
Indeno(1,2,3-cd)pyrene	0.002	0.933 IS-HI

Notes:

NYSDEC - New York State Department of Environmental Conservation

µg/L - Micrograms per liter

Red text-Exceeds TOGS

Bold-Detected above Monitoring Detection Limit

ND - Non-detectable

IS-HI-Sample rerun to confirm matrix