Universal Engineering Sciences
Building Sciences and Safety
201 Waldo Ave N, Lehigh Acres, FL 33971
www.teamues.com

To: Kerry Keith, Sr. Director of Airport Development
From: Michelle McIntyre, MPH, CIH, CSP, Director Building Sciences and Safety
Re: Sampling of Unknown Substances
Date: June 16, 2023

Per the request of the Naples Airport Authority, UES has prepared this brief summary of sampling performed on April 10, 2023 at the Naples Airport campus and three (3) off-site residences. This summarizes the UES Limited Sampling Report dated May 11, 2023, and revised June 9, 2023.

- UES was requested to perform the sampling for mold, lead and jet fuel, at Naples Airport and three offsite residential structures. The locations were:
    1. Fire Station Rooftop
    2. Runway 5 Blast Pad/Fence
    3. 1140 Little Neck Court, Naples
    4. 795 9th Ave South, Naples
    5. 678 West Lake Drive, Naples
- The locations/structures were identified by Naples Airport Staff. The sample locations on the structures were selected by the UES assessor. In general, horizontal surfaces were selected that contained the most visible amount of particulate.
- Three types of laboratory analysis were performed:
    1. Dust characterization – this test uses a microscope to categorize the types of particles. For example, pollen, fungal spores (mold), synthetic fibers, etc. Seven (7) samples were analyzed.
        - Results were presented in percentage of the particle on the sample. Amorphous debris and fungal spores (mold) were the most common particle type in the samples.
            - Amorphous debris is anything that the lab cannot identify (lacks distinctive identifying structures).
            - Carbonaceous-like particles are black carbon-like particles that are non-specific. These could include combustion products from sources such as natural fires and any vehicle that would have an internal combustion engine. These do not look like fungal spores (mold).
            - Fungal spores are mold spores.
    2. Lead – this test looks for lead in the sample. A wipe is used to collect the material in a premeasured template (100 cm^2). One sample was collected at each of the five (5) locations.
        - Results were 'Non-Detect', indicating that lead was not detected above the reporting limit of 4.6 $\mu g/ft^2$ (There are 1,000,000 micrograms [µ] in a gram). A reporting limit is the smallest concentration of the material that the lab can report with accuracy.
    3. Jet Fuel – this test looks for total hydrocarbons within the jet fuel carbon range. A wipe is used to collect the material in a premeasured template (100 cm^2). One sample was collected at each of the five (5) locations.
        - Results were 'Non-Detect' for TPH in all samples.

In summary, amorphous debris and fungal spores (mold) were the most common particle type in the samples. Mold on surfaces is a common occurrence in Florida. Lead and TPH were not detected in any of the samples.