



November 2, 2021

Steve Griffin  
Electric Conduit Construction  
816 Hicks Drive  
Elburn, IL 60119

RE: Thorium Monitoring 500-504 N. Peshtigo Ct.  
CDOT Permit #1575747

Dear Mr. Griffin:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during the excavation of a utility pole foundation at 500-504 N. Peshtigo Ct. in Chicago, Illinois. The monitoring was performed by Aaron Morris, RSSI Health Physicist, on October 19, 2021.

#### Instrumentation

Surface gamma scans were performed using a Ludlum Model 193 Survey Meter (serial no. 149073) with attached Ludlum Model 44-10 2"x2" NaI Detectors (unshielded). The efficiency for thorium was determined at calibration to be 740 counts per minute (cpm) per picocuries per gram (pCi/g).

The average background count rate for this location ranged from 2,200 cpm.

#### Soil Gamma Scans

Gamma surface scans of the pole excavation were performed using the Ludlum Model 193 Survey Meter described above. Survey data was collected for the utility trench by lowering the detector into the boring at each 1-foot depth, to a maximum depth of 9 feet below ground surface.

The maximum gamma count rate for each lift was recorded on the attached Radiation Survey Data Table. The gross count rates in the pole excavation ranged from 2,400 cpm to 5,200 cpm. The elevated count rates are likely due to the fact than an unshielded detector was used. All calculated thorium concentrations were below the US Environmental Protections Agency (USEPA) threshold limit of 7.1 pCi/g total thorium.

#### Additional Monitoring

Since no count rates were identified above the 7.1 pCi/gram threshold limit, no additional soil sampling, air monitoring, or personnel monitoring were performed.

I will be providing a copy of this report to both the City of Chicago Department of Public Health and US Environmental Protection Agency, as required.

Thank you for your assistance with this project. If you have any questions or need additional information, please call me at (815) 485-6161.

Sincerely,  
 Stan A. Huber Consultants, Inc.

Glenn Huber, CHP  
 President

Survey Data Table 10/19/21:

Date	Background [cpm]	Measurement [gross cpm]	Net CPM	pCi/g	Depth
Tuesday, 10/19/2021	2400	4400	2000	2.7	Bottom (9' from grade)
Tuesday, 10/19/2021	2400	5200	2800	3.8	8'
Tuesday, 10/19/2021	2400	4800	2400	3.2	7'
Tuesday, 10/19/2021	2400	4800	2400	3.2	6'
Tuesday, 10/19/2021	2400	4400	2000	2.7	5'
Tuesday, 10/19/2021	2400	4800	2400	3.2	4'
Tuesday, 10/19/2021	2400	4400	2000	2.7	3'
Tuesday, 10/19/2021	2400	4000	1600	2.2	2'
Tuesday, 10/19/2021	2400	2400	0	0.0	1' (subslab)