



March 10, 2020

955363

Mike Lanenga  
SET Environmental  
450 Sumac Road  
Wheeling, Illinois 60090

RE: 511-521 N. St. Clair St. Thorium Monitoring – City of Chicago Department of  
Transportation  
CDOT Permit: 1210671

Dear Mr. Lanenga:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during the excavation and filling of a vaulted sidewalk at 511 – 521 N. St. Clair Street in Chicago, Illinois. The monitoring was performed by Brian Schmidt, SAHCI Health Physics Technician, on February 28, 2020. All activities were conducted under the guidance of document *SET General Procedure for Thorium Monitoring*.

#### Instrumentation

Surface gamma scans were performed using a Ludlum Model 2221 Scaler / Ratemeter (serial no. 132844) with attached Ludlum Model 44-10 2"x2" NaI Detector (w/ 6" collimated lead shield). The instrument was calibrated on August 6, 2019. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 7,299 counts per minute (cpm).

The average background count rate for this location was measured as 1,879 cpm.

#### Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeter described above. Survey data was collected by surveying the surface of the sidewalk and again after removal and recording the highest count rate to a maximum excavation depth of 12 inches below ground surface. No material was excavated out of the vaulted area of the sidewalk. All concrete was loaded directly into a truck for disposal.

The maximum gamma count rate for each lift was recorded on the attached Radiation Survey Form. The count rates in the excavation ranged from 1,900 cpm to 2,800 cpm. No count rates were found at any time that exceeded the threshold limit of 7,299 cpm.

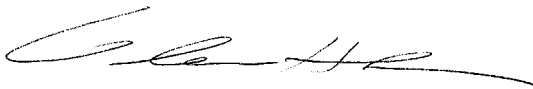
Additional Monitoring

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.

A handwritten signature in black ink, appearing to read 'G. Huber', with a long horizontal flourish extending to the right.

Glenn Huber, CHP  
President



### Radiation Survey Form

Location/ Project ID: COOT - 511-521 N. ST. CLAIR ST. - SIDEWALK REPLACEMENT - ROW  
RADIOLOGICAL SOIL SURVEY

Date: 2/28/2020 Technician: BRIAN SCHMIDT

Inst Model: LUDLUM - 2221 Serial No.: 132844

Probe Type: 1"x1" NaI / 2"x2" NaI  
Shielded / Not Shielded Lift Elevation: 0 - 30"

Background 1879 cpm Action Level: 7299 cpm

Write grid designations in circles. Record highest counts for grid in cpm. Record 30 second counts at grid intersections (if required). Shade areas of elevated counts and record max cpm.

